

CSUMAKOV, M.P.; VOROSILOVA, N.K.; VASZILJEVA, K.A.; IAKINA, M.N.;
ASMARINE, E.M.; DOBROVA, I.N.; DROZDOV, SZ.G.; JANKOVICS, O.D.;
PODSZEDLOVSKIJ, T.SZ.; SZOKOLOVA, I.SZ.; SIRMAN, G.A.; BOJKO, V.M.

Oral mass immunization of the population of the Soviet Union
against poliomyelitis with live vaccine prepared from attenuated
Sabin strains. Orv.hetil. 101 no.4:109-117 Ja '60.

1. Orvostudományi Akadémia, poliomyelitis Kutató Intézet, Moszkva.
(POLIOMYELITIS immunol.)

DROZDOV, S. G.; SHIRMAN, G. A.; technical assistance: KOPYZEVA, T. V.

Interaction of viruses in the intestinal tract of man. I. Interference between wild and vaccine poliovirus strains. Acta virol. Engl. Ed. Praha 5 no. 4: 210-219. J1 '61.

1. Institute of Poliomyelitis Research, U.S.S.R. Academy of Medical Sciences, Moscow.

(POLIOMYELITIS immunol)

CHUMAKOV, M.P., prof., otv. red.; VOROSHILOVA, M.K., red.; DZAGUROV, S.G., red.; DROZDOV, S.G., red.; ZEYTLIN, N.A., red.; LASHEVICH, V.A., red.; SHAPIRO, S.L., red.;

[Poliomyelitis peroral live vaccine; papers] Poliomielitnaia peroral'naia zhivaia vaktsina; materialy. Pod red. M.P. Chumakova. Moskva, 1961. 658 p. (MIRA 15:8)

1. Akademiya meditsinskikh nauk SSSR. Moskva, Institut poliomieliita i virusnykh entsefalitov. Nauchnaya sessiya. 4th, Moscow, 1960. 2. *Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR* (for Chumakov).

(POLIOMYELITIS VACCINE)

CIUMAKOV, M.P.; VOROSILOVA, M.K.; DZAGUROV, S.G.; DROZDOV, S.G.; LASKEVICI,
V.A.; MIRONOVA, L.L.

Results of investigations made in the past 4 years on the immunization
of several Soviet populations with poliomyelitis live vaccine (Sabin
type) administered orally. Stud. cercet. inframicrobiol. 13 no.5:
589-591 '62.

1. Institutul pentru cercetarea poliomielitei si a encefalitelor
virotice al Academiei de stiinte medicale a U.R.S.S.
(POLIOMYELITIS) (POLIOVIRUS VACCINE, ORAL)

CHUMAKOV, M.P.; VOROSHILOVA, M.K.; DROZDOV, S.G.; DZAGUROV, S.G.; LASHKEVICH, V.A.; MIRONOVA, L.L.; RAL'F, N.M.; GAGARINA, A.V.; DOBROVA, I.H.; ASIMARINA, Ye.Ye.; SHIFMAN, G.A.; FLEYER, G.P.; TOL'SKAYA, Ye.A.; SOKOLOVA, I.S.; EL'BERT, L.B. (Moskva); SINYAK, K.M. (L'vov)

Some results of the work in mass immunization of the population of the Soviet Union against poliomyelitis with live vaccine from Sabin strains. Vest. AMN SSSR 16 no.4:30-43 '61. (MIRA 15:5)

1. Iz Instituta poliomyelita i virusnykh entsefalitov AMN SSSR.
(POLIOMYELITIS VACCINE) (POLIOMYELITIS--PREVENTION)

L 12591-63

ACCESSION NR: AP3002519

S/0248/63/000/006/0005/0015

44

AUTHOR: Chumakov, M. P.; Voroshilova, M. K.; Dzagurov, S. G.; Drozlov, S. G.;
Lashkevich, V. A.; Mironova, L. L.; Ral'f, N. M.; Sinyak, K. M.; Bartoshevich,
Ye. N.; Vasil'yeva, K. A.; Gagarina, A. V.; Grachev, V. P.; Zhevandrov, V. I.;
Taranova, G. P.; Koroleva, G. A.; Kukayn, R. A.; Robinzon, I. A.; Tyufanov, A. V.;
El'bert, L. G.

TITLE: Results of live vaccine mass immunization against poliomyelitis and the
outlook for eradicating this disease

SOURCE: AMN SSSR. Vestnik, no. 6, 1963, 5-15.

TOPIC TAGS: Poliomyelitis, immunization, vaccine, Salk, Sabin

ABSTRACT: This article is a survey of the fight against polio in the Soviet
Union with special emphasis on the live vaccine mass immunization program during
the past four years. In 1954 polio became a serious problem in the USSR and in
1955 the Poliomyelitis Institute was formed as part of the Academy of Medical
Sciences. At first, Salk vaccine was produced (at Moscow and Sverdlovsk) and
from 1957 to 1960 more than 12 million children were inoculated. Late in 1958
10 million experimental doses of the Sabin live vaccine were prepared and in

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ACCESSION NR: AP3002519

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January 1959 the Institute switched to developing live vaccine on a large scale. In 1961, when international needs for a purer live vaccine were developed, the Institute solved the problem of purifying Sabin's culture strains from admixture to latent monkey virus no. 40 (OV sub 40) by using kidney clutres from green marmosets rather than from monkeys. At the end of biocontrol, 1 M solution MgCl sub 2 was added to increase virus thermostability in transit and to avoid microbe or virus contamination. Between 1959 and 1962 the Soviet Union exported over 153 million vaccine doses (mostly in lozenge form) to 20 countries (Table 2). In the USSR 95% of all inoculations from 1960 to 1962 were in lozenge form with oral liquid vaccine given only to babies. The great advantage of live vaccine establishes local immunity at the sites of virus entry into the body. Such immunity prevents transmittal of virus by "symptomless" cases. Studies of children inoculated with live vaccine show a marked increase in the number of antibodies in all age groups and a total absence of "wild" polio virus strains in feces tests of healthy children. From 1959 to 1962 over 217,879,000 doses of live vaccine have been administered in the USSR. Of these, 91,300,000 were first inoculations and 126,579,000 were second inoculations. Fig. 3 shows a sharp decrease (almost to zero) in the incidence of polio in the USSR for 1962. The following immunization plan is recommended: immunization of trivalent (types, I, II, and III) live vaccine for children aged 2 to 12 mos for intervals of 6 to 12 weeks and annual

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ACCESSION NR: AP3002519

oral revaccination with trivalent live vaccine for children ages 1 to 8-15 years. Revaccination can be given in two doses at intervals of 6 to 12 weeks. The number of annual revaccinations can probably be cut down eventually to 4 or 5 after the basic three vaccinations (types I, II, and III). The outlook for winning the fight against polio in the USSR is very encouraging. Orig. art. has: 3 figures, 4 tables.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 12Jul63

ENCL: 00

SUB CODE: AD

NO REF SOV: 000

OTHER: 00

Cord 3/3

SHIRMAN, G.A.; DROZDOV, S.G.

Interaction of viruses in the human intestine. Report No.3:
Effect of serumal immunity on the results of the interaction between types II and II⁻ of vaccinal poliomyelitis virus. Vop. virus. 8 no. 1:60-63 Ja-F'63. (MIRA 16:6)

1. Institut po izucheniyu poliomiylita AMN SSSR, Moskva.
(POLIOMYELITIS VACCINES) (INTESTINES—MICROBIOLOGY)

DROZDOV, S.G.

Simple method of cultivating fragments of normal and tumorous
tissues. Vop. Virus. 8 no.5:630-631 S-0'63 (MIRA 17:1)

1. Institut poliomyelita i virusnykh entsefalitov AMN SSSR.

GHUMAKOV, M.P.; VOROSHILOVA, M.K.; DZAGUROV, S.G.; ~~DROZDOV, S.G.~~;
LASHKEVICH, V.A.; MIRONOVA, L.L.; RAL'F, N.M.; SINYAK, R.M.;
BARTOSHEVICH, Ye.N.; VASIL'YEVA, K.A.; GAGARINA, A.V.;
GRACHEV, V.P.; ZHEVANDROVA, V.I.; TARANOVA, G.P.; KOROLEVA, G.A.;
KUKAYN, R.A.; ROBINZON, I.A.; TYUFANOV, A.V.; EL'BERT, L.B.

Results of mass immunization with live poliomyelitis vaccine
and the prospects for eradication of this disease. Vest.
AMN SSSR 18 no.6:5-15 '63. (MIRA 17:1)

DROZDOV, S.G.

Microscope with low position of the objective for work with tissue cultures. Lab. delo 10 no.5:313-315 '64. (MIRA 17:5)

1. Institut poliomyelita i virusnykh entsefalitov (direktor - deystvitel'nyy chlen AMN SSSR prof. M.P.Chumakov) AMN SSSR, Moskva.

DROZDOV, S.G.; ZDANOVSKY, I.I.; SHIRMAN, G.A.

Device for tissue culture in the air with 5% of carbon dioxide.
Vop. virus. 9 no.6:723-725 N-D '64.

(MIRA 18:11)

1. Institut poliomyelita i virusnykh entsefalitov AMN SSSR,
Moskva.

DEZD, S.I.
USSR/Nuclear Physics - Neutron scatter

FD-2351

Card 1/1 Pub. 146 - 16/34

Author : Drozdov, S. I.

Title : Scatter of fast neutrons by nonspherical nuclei. I

Periodical : Zhur. eksp. i teor. fiz. 28,734-736, Jun 1955

Abstract : The author discusses the scattering of fast neutrons by a black nucleus that has the shape of a body of revolution and a spin equal to zero. He solves the problem of scatter in adiabatic approximation (W. Pauli, General principles of wave mechanics, translated into Russian by Foreign Literature Press, 1947) by considering the ψ -function in Schroedinger equation of Hamiltonian operator of system neutron and fixed nucleus and energy operator of revolution of the nucleus, under the assumption that the energy of incident neutron is much larger than energy of rotation of nucleus. He thanks B. T. Geylikman, to whom the idea of the present calculation belongs, and also A. B. Migdal, V. G. Nosov, and V. M. Galitskiy. Four references: e. g. L. Landau and Ye. Lifshits, Kvantovaya mekhanika, GITTL, Moscow, 1948; Teoriya polya, GITTL, Moscow, 1948. L. Schiff, Progr. Theor. Phys. 11, 1954.

Institution : Academy of Sciences USSR

March 18. 1955

DROZDOV, S.I.

USSR/Nuclear Physics - Neutron scatter

FD-2352

Card 1/1 Pub. 146 - 17/34

Author : Drozdov, S. I.

Title : ~~Scatter of fast neutrons by nonspherical nuclei.~~ II

Periodical : Zhur. eksp. i teor. fiz. 28, 736-738, Jun 1955

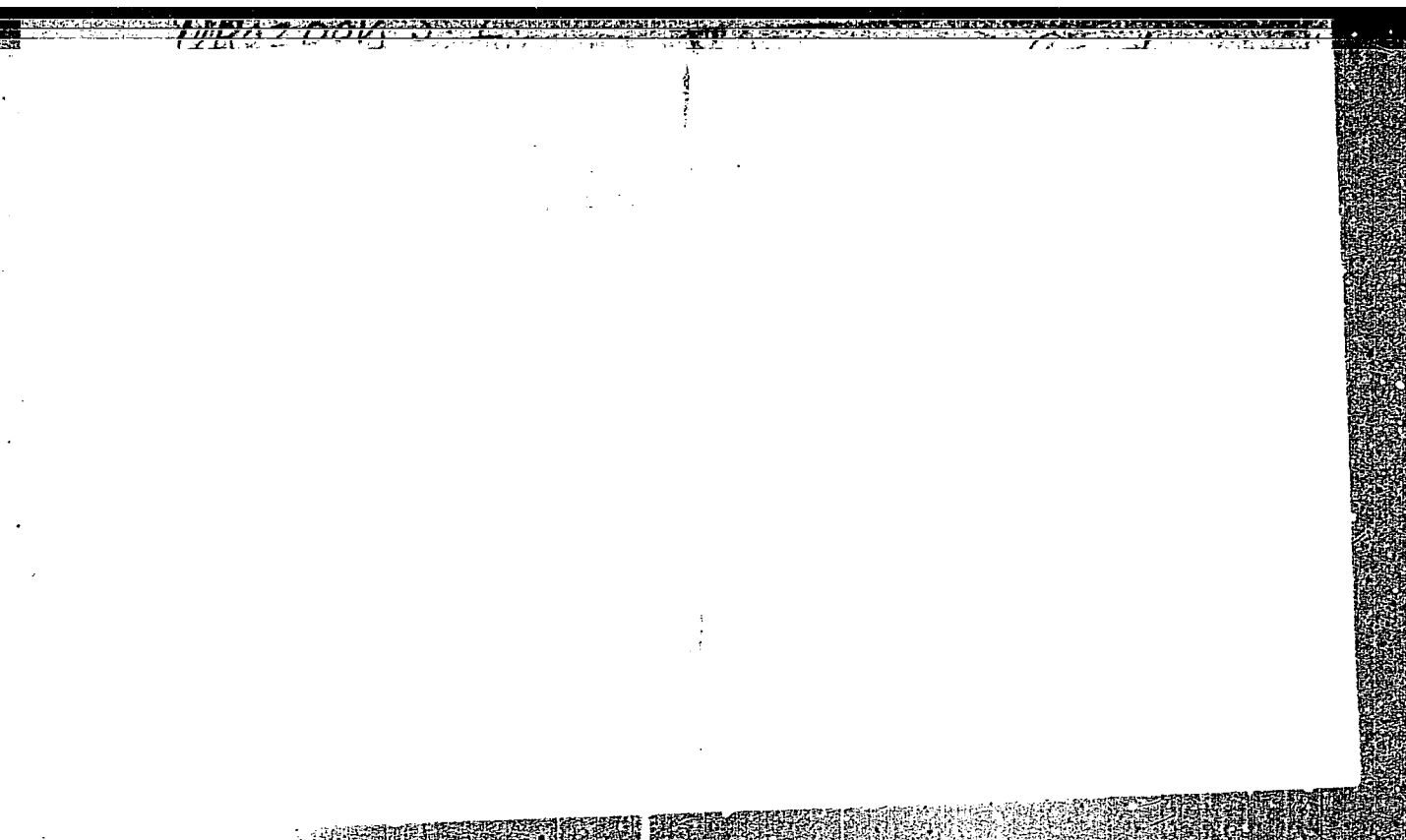
Abstract : In the author's preceding note, same issue, he calculated the effective cross-sections of scattering of fast neutrons by a dark nuclei possessing the shape of an ellipsoidal solid of revolution and spin zero. In the present note he discusses the obtained results under the assumption that before scattering the nucleus was in the ground state. He concludes that the full cross-section of excitation of the ℓ -th rotatory level of a nucleus differs from zero only for even ℓ and rapidly decreases with increasing ℓ . Two references: e. g. A. Akhiezer and I. Pomeranchuk, Nekotoryye voprosy teorii yadra [Some problems of the theory of the nucleus], Moscow, 1950.

Institution : Academy of Sciences USSR

Submitted : March 18, 1955

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CIA-RDP86-00513R00041123



APPROVED FOR RELEASE: Thursday, July 27, 2000

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SUBJECT USSR / PHYSICS
 AUTHOR DROZDOV, S.I.
 TITLE The Scattering of Neutrons in Para- and Orthohydrogen.
 PERIODICAL Atomaja Energija, 1, fasc. 3, 50-55 (1956)
 Publ. 3 / 1956 reviewed 9 / 1956

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PA - 1282

Here the differential and total cross sections of the elastic and inelastic scattering processes of neutrons in parahydrogen- and orthohydrogen molecules are computed. On this occasion the results obtained by J. SCHWINGER and E. TELLER, Phys. Rev. 52, 286 (1937) are generalized for the case that the energy of the neutrons suffices for the excitation of oscillation levels. Furthermore, the oscillations of the nuclei in the molecule are assumed to be harmonic. The corresponding wave function of the molecule is explicitly written down and the states of the molecule are described by the quantum numbers n, l, m , and S , where S is the spin of the molecule (equal to 0 or 1).

At first, the differential cross section for the scattering of the molecule with and without modification of the spin in the center of mass system is determined and reduced to a more serviceable form. In the case of inelastic scattering, scattering through large angles is most probable. With $E \ll \hbar \omega$ no oscillation levels are excited and it is then possible also to neglect the zero oscillations and to treat the molecule as a rigid rotator. The cross sections are written down also for this case and for the case $l=l', n=0$. The total cross sections are determined by integration of the differential one over all scattering angles. The cross section of the elastic scattering

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decreases inversely to the energy of the neutron. The cross section is specialized also for the scattering of slow neutrons ($E \ll \hbar \omega$).

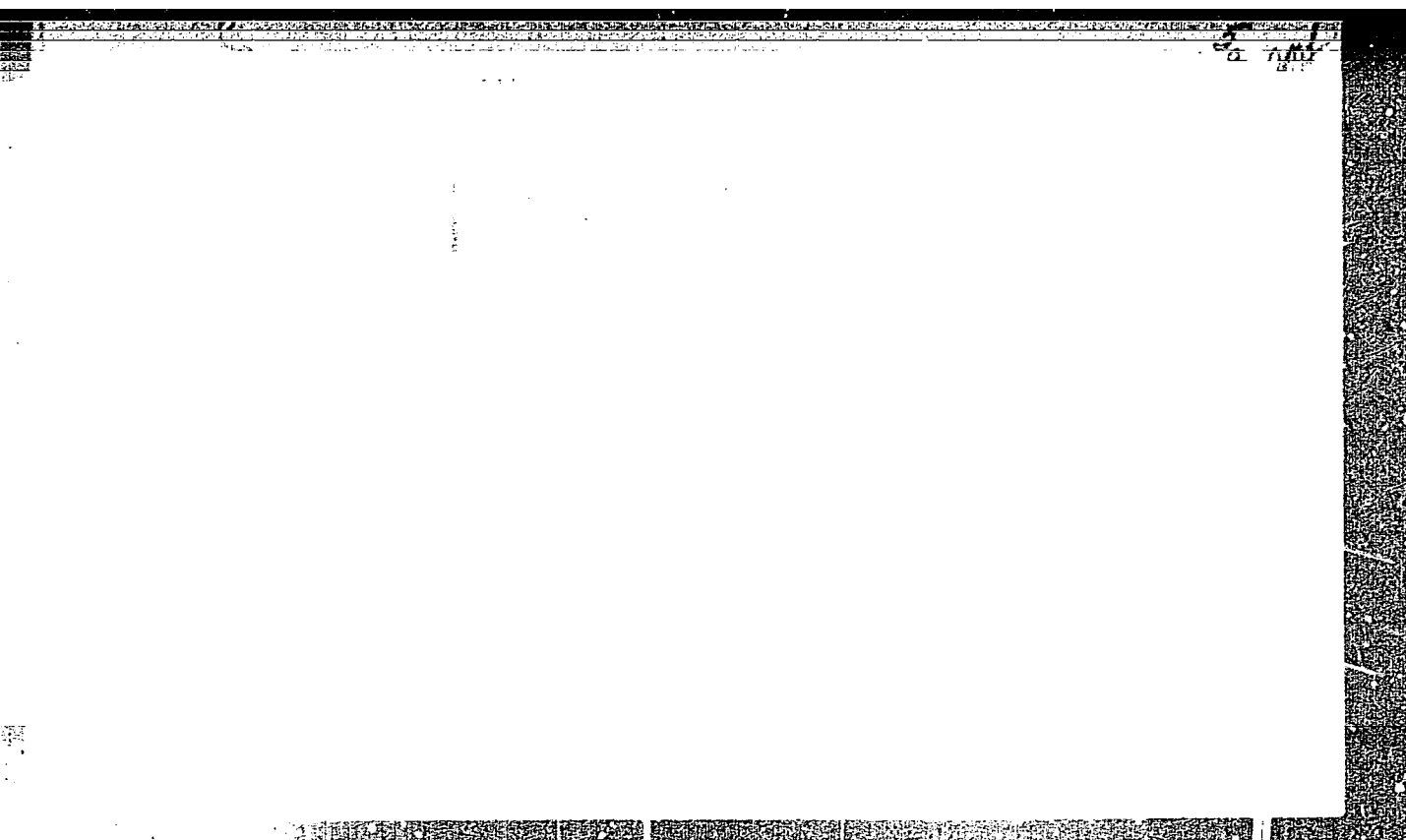
If the energy of the neutron is greater than the spacing between oscillation levels, the influence exercised by the rotation levels on the energy of the scattered neutron may be neglected. The excitation cross section of the n-th oscillation level of the molecule at any rotation state, and herefrom by integration over all scattering angles the total cross section of inelastic scattering with excitation of the n-th oscillation level of the molecule is determined.

If the energy of the neutron is considerably greater than the spacing between the oscillation levels, a rather simple expression for the average energy loss of the neutron scattered under the angle θ is obtained. The average energy loss depends on the primary rotation state of the molecule, tends towards zero at $\theta \rightarrow 0$, and is largest on the occasion of scattering into large angles. In the case of extremely high energies, the average energy loss due to the excitation of molecular levels is proportional to the energy of the incident neutron. However, also the energy loss in the case of a low energy of the incident neutron is determined.

INSTITUTION:

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APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R000411230

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1224
AUTHOR DROZDOV, S.I.
TITLE The Scattering of Fast Neutrons by Nonspherical Nuclei. III.
PERIODICAL Zhurn. eksp. i teor. fis, 30, 786-788 (1956)
Publ. 4 / 1956 reviewed 8 / 1956

In the present instance the results obtained previously are generalized for nuclei with non-vanishing spin (odd nuclei). At first, the matrix element determining the scattering cross section in adiabatic approximation and the amplitude of neutron scattering by an immobile nucleus is given. A strong coupling between the motion of the nucleons in the nucleus and the motion of the nuclear surface is assumed. The eigenfunctions of the states of rotation of the nucleus then represent eigenfunctions of a symmetrical gyroscope. For the rotation levels of the nucleus it applies that $\epsilon_{IK} = (\hbar^2/2J)(I(I+1) - K(K+1))$;

$I=K, K+1, \dots$; here I denotes the total angular momentum of the nucleus. Next, the differential cross sections for the excitation of the rotation levels and for the scattering of neutrons without change of energy are given. This cross section of the scattering of a neutron by a nonspherical nucleus with non-vanishing spin ($K \neq 0$) does in general not become equal to zero in the investigated interval of the scattering angles $\theta < 0$. However, in the special case of even-even nuclei the angular distribution has zeros in the case of elastic scattering like the cross section of elastic scattering on the occasion of the diffraction of fast neutrons by a spherical nucleus.

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PA - 1224

Next, the summary cross section of scattering in a special angle of space with excitation of different states of rotation is written down and several times transformed. This summary cross section does not depend on the initial state of the nucleus. The total summary cross section $\sigma_s = \int d\Omega \sigma_s(\theta)$ does not depend on energy.

The total cross section of all scattering processes is, as we know, defined by the imaginary part of the amplitude of the elastic scattering into the angle zero. The total scattering cross section and the cross section of the absorption of neutrons, like the summary cross section σ_s , do not depend on the initial state of the nucleus.

In the case of spherical nuclei the formulae mentioned here are identical with the formulae of the theory of the diffraction scattering of neutrons by a black spherical nucleus.

INSTITUTION:

DROZDOV, S.I.

Cross sections for fast particle absorption by semitransparent nuclei. Dokl.AN SSSR 106 no.3:409-412 Ja '56. (MLRA 9:6)

1.Predstavleno akademikom M.A.Leontovichem.
(Neutrons--Scattering) (Nuclear reactions)

DROZDOV, S. I.

Acad. Sci. USSR

"Scattering of Fast Protons by Nonspherical Nuclei,"

paper submitted at the A-U Conf. on Nuclear Reactions in Medium and Low Energy
Physics, Moscow, 19-27 Nov 57.

AUTHOR

DROZDOV, S.I.

TITLE

The Scattering of Rapid Protons by Non-Spherical Nuclei. 85-6-2/24
(Rasseyaniye bystrykh protonov nesfericheskimi yadrami-Russian)
Atomnaya Energiya, 1957, Vol 2, Nr 6, pp 501-506 (U.S.S.R.)

PERIODICAL

ABSTRACT

This scattering is investigated here under the assumption, that the energy of the proton is large in comparison to the energy of the COULOMB barrier ($E \lesssim 20 \text{ MeV}$). Also the model of the black nucleus and the adiabatic approximation are used. The solution of the problem in the adiabatic approximation is reduced to the determination of the amplitude $f(\Omega, \omega)$ of scattering on the immovable nucleus. If the wave length of the incident protons is much smaller than the dimensions of the nucleus ($kR \gg 1$), the scattering of the protons may be looked upon as quasiclassical if a black nucleus is assumed. In this case $f(\Omega, \omega) = f_e(\Omega, \omega) + f_d(\Omega, \omega)$ is found, i.e. the scattering amplitude is composed of the amplitudes of the diffraction scattering and the scattering in the electric field of the nucleus. Both parts of the amplitude are determined under the assumption that the shape of the nucleus deviates sufficiently little from the spherical shape ($a_2 Z e^2 / \hbar v \ll 1$). In conclusion the elastic scattering of protons by even-even nuclei is computed, i.e. the angular distribution of protons of 20, 30 and 50 MeV, which are scattered by the nuclei of the Gd_{160} and U_{238} are computed. Four diagrams illustrate the ratio (cross section $\sigma_0(\theta)$ of the elastic scattering / cross section $\sigma_k(\theta) = |f_k(\theta)|^2$ of

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The Scattering of Rapid Protons by Non-Spherical Nuclei. 89-5-2/24
COULOMB'S scattering. Within the domain of very small angles a
COULOMB scattering occurs; the corresponding angular interval
does not depend upon the parameter of the deformation. Within
the domain of comparatively large angles a diffraction scatter-
ing occurs, where the angular distribution shows characteristic
maxima and minima. The cross section of the elastic scattering
in this domain depends essentially upon the deformation parame-
ter.
(4 illustrations)

ASSOCIATION Not Given.
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DROZDOV, S. I., ZARETSKIY, D. F., KUDRIN, L. P. and SEDELNIKOV, T. Kh.

"On the Formation of a Thermal Neutron Spectrum."

paper to be presented at 2nd UN Intl. Conf. on the peaceful uses of Atomic Energy, Geneva, 1 - 13 Sep 58.

DROZDOV, S. I. (Moscow, USSR)

"L'Excitation des Etats Collectifs des Noyaux dans le Processus de Diffusion
des Protons d'Energie Superieure a la Barriere de Potential."

report presented at the Intl. Congress for Nuclear Interactions (Low Energy) and Nuclear
Structure, Paris, 7-12 July 1958.

AUTHOR: Drozdov, S. I. SOV/56-34-5-34/1

TITLE: Excitation of the Vibrational and Rotational States of Nuclei Due to Scattering of Nucleons (Vozbuzhdeniye kolebatel'nykh i vrashchatel'nykh sostoyaniy yader pri rasseyanii nuklonov)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol. 34, Nr 5, pp. 1288 - 1291 (USSR)

ABSTRACT: In this paper the scattering of nucleons by black nuclei which have rotation or vibration levels is investigated in adiabatic approximation. The wave length of the incident particle k^{-1} is assumed to be much shorter than the dimensions R^0 of the nucleus ($kR \gg 1$). The energy of the proton is assumed to be much higher than the Coulomb barrier ($Ze^2/RE \ll 1$) and the nucleus is regarded to absorb all striking particles (model of the black nucleus). This condition necessitates neutron energies of $E \gtrsim 10$ MeV and proton energies of $E \gtrsim 20$ MeV. In this case it is convenient to use the adiabatic approximation according to which the nuclei are assumed to be at rest during the process of scattering. In the investigation of the scattering through narrow

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Excitation of the Vibrational and Rotational States of Nuclei Due to Scattering of Nucleons SOV/56-34-5-34/61

angles on the above given conditions the amplitude of the elastic scattering of the nucleons by a nucleus at rest can be represented in the form

$f(\omega, \Omega) = f_e(\omega, \Omega) + f_d(\omega, \Omega)$, where $f_e(\omega, \Omega)$ denotes the amplitude of the scattering of the particles in the electric field of a nucleus at rest. In the examination of the scattering through narrow angles the finiteness of the charge distribution in the nucleus can be neglected. A formula is written down for the amplitude of the scattering in the electric field of the nucleus. The author restricts himself to the investigation of the elastic scattering and of the scattering with the transition of the nucleus from the ground state into the first excited state. Only the quadrupole deformations of the nucleus are considered. In the computation of the cross sections it is convenient to expand the amplitude $f(\omega, \Omega)$ into a series according to the powers of the deformation parameter. The found cross sections of the excitation of the rotation state (I, M) of an even-even nucleus and the cross section of the excitation

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Excitation of the Vibrational and Rotational States of Nuclei Due to Scattering of Nucleons SOV/56-34-5-34/1

of n-phonons $(1,m)$ are written down. The matrix elements of the amplitude $f(\alpha_{2m}, \Omega)$ which describe the cross sections of the elastic and inelastic scattering are also written down explicitly. There are 4 references, 3 of which are Soviet.

SUBMITTED: December 22, 1957

1. Nuclei--Scattering 2. Nuclei--Excitation 3. Mathematics
--Applications

Card 3/3

21(7)

AUTHORS: Chistova, E. A., Drozdov, S. I. SOV/89-6-2-7/28

TITLE: Neutron Scattering in Para- and Orthohydrogen (Rasseyaniye neytronov v para-i ortovodorode)

PERIODICAL: Atomnaya energiya, 1959, Vol 6, Nr 2, pp 152 - 161 (USSR)

ABSTRACT: At energies exceeding considerably the bond energy of moderator atoms the neutron moderation can be represented very well by the laws of the elastic collision of 2 balls. As soon as the neutron energy has more or less attained the amount of the moderator atom bond energy, the latter begins to play an important part during the moderation process, wherein energy and temperature dependence, respectively, is already observed. The formulae of the total cross section, the average asymmetry of the scattering and the medium energy loss with a collision in para- and orthohydrogen in dependence on the neutron energy and moderator temperature are now theoretically deduced. The formulae derived were numerically evaluated by E. A. Chistova with the electric computer of the AS USSR Calculation Office and the numerical results were given in a graph. The calculations include: The cross sections

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Neutron Scattering in Para- and Orthohydrogen

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$\sigma_{1,1}(E)$, $\sigma_1(E)$, $\sigma(E, \theta)$

the scattering asymmetry $\mu_{1,1}(E)$, $\mu_1(E)$, $\mu(E, \theta)$

the relative energy loss in one fission $\frac{\Delta E}{E}(E, \theta)$, each

in dependence on the neutron energy E and in the laboratory coordinate system under the following initial conditions:

$0.01 \text{ ev} < E < 1 \text{ ev}$; $\theta = 0$; 0.015; 0.020 and 0.025 ev.

With these energy and temperature values the states characterized by $1' \leq 5$ and $1 \leq 7$ were assumed as initial and final states of the H_2 molecule. The calculations were

carried out for the most part without considering the nuclear oscillation within the molecule, which is useful only within the range of $E \leq 0.1 \text{ ev}$. Within the range of $0.1 \text{ ev} < E < 1 \text{ ev}$ the zero oscillations were taken into account in the calculation of $\frac{\Delta E}{E}(E, \theta)$. There are 5 figures and 7 references, 2

of which are Soviet.
September 4, 1958

SUBMITTED:
Card 2/2

24(5), 21(7)

AUTHOR:

Drozdev, S. I.

SOV/56-36-6-35/66

TITLE:

Excitation of Collective States in Nuclei by the Scattering of Charged Particles (Vozbuzhdeniye kollektivnykh sostoyaniy yader pri rasseyanii zaryazhennykh chastits)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 6, pp 1875 - 1881 (USSR)

ABSTRACT:

The present paper aims at investigating the elastic and inelastic scattering of fast charged particles on black nuclei of nonspherical shape. In the scattering of nucleons on nonspherical nuclei an excitation of the collective states of the nucleus occurs as a result of the direct interaction between the incident particles and the nuclear surface. The author investigates the scattering processes in diffraction approximation by basing upon the following assumptions: The incident particles (protons or α -particles) have an energy E which is considerably higher than the Coulomb barrier

$ZZ'e^2/R$ if the condition $kR \gg \eta$ is satisfied. $\eta = ZZ'e^2/\hbar v$ is the Coulomb barrier, k - the wave number of the incident particle, and R - the nuclear radius. It is further assumed that $kR\Delta E/E \ll 1$ (ΔE is the energy of the excited level), that the nucleus is considered to be at rest, and that the energy loss of the particle in the infinite

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of Charged Particles

collision is neglected. Solution of the problem by adiabatic approximation makes it possible to determine the scattering amplitude of the particle on the nucleus at rest $f(\Omega, \omega)$, where $\Omega = (\theta, \phi)$ determines the direction of scattering, and $\omega = (\chi, \varphi)$ - the orientation of the nuclear symmetry axis. The differential scattering cross section with excitation of the first rotational level of an even-even nucleus with the moment λ has the form:

$$\sigma_{\lambda}(\theta) = \sum_{\mu} |\langle Y_{\lambda\mu}(\omega) f(\Omega, \omega) Y_{00} \rangle|^2. \quad \text{If these conditions are satisfied,}$$

it is possible to calculate the scattering amplitude by using the methods of the diffraction theory, in which case the interaction energy is considered to be a perturbation. For the cross section $\sigma_{\lambda}(\theta)$ and otherwise general formula (20) is deduced in the case $\lambda=2$, and if $\eta=0$, the following holds:

$$\sigma_{\eta\lambda}(\theta) = \alpha_{\lambda}^2 \frac{(kR)^4}{4k^2(2\lambda+1)} [J_0^2(kR\theta) + 3J_2^2(kR\theta)] \quad (21).$$

This formula describes the angular distribution of inelastically scattered neutrons on an even-even nucleus, with excitation of the first collective level. In the last chapter the author shows in

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Excitation of Collective States in Nuclei by the Scattering SOV/56-36-6-35/66
of Charged Particles

what manner the radius and the nonsphericity parameter of the nucleus may be determined by comparing calculated with experimental data (cf. Figs 1 - 3). In an appendix it is shown that the formula (18) deduced in this paper describes the amplitude of the electric quadrupole excitation for small scattering angles ($\theta \ll 1$) in adiabatic approximation. The author finally thanks L. D. Landau, B. T. Geylikman, and K. A. Ter-Martirosyan for discussions, and T. V. Novikov and A. V. Cherenkov for carrying out numerical computations. There are 3 figures and 11 references, 6 of which are Soviet.

SUBMITTED:

January 14, 1959

Card 3/3

DROZDOV, S.I.

Excitation of collective states in nuclei in the scattering of
charged particles. Zhur.eksp.i teor.fiz. 38 no.2:499-502 F '60.
(MIRA 14:5)

(Particles (Nuclear physics)—Scattering) (Nuclei, Atomic)

83739

S/056/60/038/004/032/048
B006/B056

84.6520

AUTHORS: Grin', Yu. T., Drozdov, S. I., Zaretskiy, D. F.

TITLE: The Moments of Inertia of Odd Atomic Nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 38, No. 4, pp. 1297 - 1303

TEXT: In the regions $150 < A < 190$ and $A > 225$ the atomic nuclei are deformed and, besides single-particle levels, they have also rotational ones. It was found experimentally that the moments of inertia of odd nuclei surpassed those of even nuclei considerably. Several authors have dealt with the derivation of formulas for the moments of inertia of even and odd nuclei, without, however, taking pair correlation into account. The authors of the present paper, for the purpose of determining the moments of inertia (taking pair correlation into account), use the Green functions for a finite system having an odd number of particles. The calculation method is analogous to that used by A. B. Migdal for even-even nuclei (Refs. 3,4). An explicit formula (18) is obtained for δJ , in which the difference of the moments of inertia $J_e(x_e) - J_e(x_0)$

Card 1/2

The Moments of Inertia of Odd Atomic Nuclei ⁸³⁷³⁹
S/056/60/038/004/032/048
B006/B056

occurs as an unknown term (the subscripts e and o mean even and odd).
 $\kappa = \hbar\omega_0\beta/2\Delta$, $\hbar\omega_0 = 41 A^{-1/3}$ Mev. The Δ values are partly known from the
 experiment and partly determined by interpolation according to the for-
 mula $\Delta_e = \Delta_o + 1/q_o$, where q_o denotes the density of the single-particle
 levels near the Fermi surface. For calculating the difference of J_e ,
 Δ_e , Δ_o , β_e , and β_o must be known. These four parameters are given in
 Table 1 for a total of 19 nuclei between $^{64}\text{Gd}^{155}$ and $^{96}\text{Cm}^{245}$, as well as
 the relative change in the moments of inertia for nuclei having odd num-
 bers of neutrons $\delta J/J_T$ (in %). (J_T is the moment of inertia of the solid;
 $\delta J/J_T \sim A^{-1/3}$). Table 2 gives the same parameters for nuclei having odd
 numbers of protons (11 nuclei from $^{67}\text{Ho}^{165}$ to $^{95}\text{Am}^{243}$). The authors
 thank S. T. Belyayev and A. B. Migdal for discussions. There are
 2 tables and 9 references: 4 Soviet, 1 US, 1 Dutch, and 3 Danish.

SUBMITTED: November 17, 1959

Card 2/2

DROZDOV, S.I.; ZARETSKIY, D.F.

Effects of pair correlation near closed shells. Zhur. eksp. i
teor. fiz. 40 no.1:286-295 Ja '61. (MIRA 14:6)
(Potential, Theory of) (Superconductivity)

24,600

S/056/63/044/001/057/067
B164/B102

AUTHOR: Drozdo, S. I.

TITLE: Excitation of collective states of nuclei by scattering of charged particles

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 1, 1963, 335 - 340

TEXT: The amplitudes and the differential cross section of inelastic small-angle scattering of charged particles by semitransparent nuclei with single-phonon excitation of the first collective levels 2^+ , 3^- are calculated assuming the optical potential

$$V(\vec{r}) = -V_0(1 + i\zeta)n(\vec{r})$$

in diffraction approximation for rigid nonspherical nuclei. The values so found are compared with experimental results. Let the nucleus surface be described by $R(a) = R(1 + \sum \alpha_\lambda P_\lambda)$, where α_λ are the nonsphericity parameters.

Furthermore, let the charge distribution be consistent with the density

Card 1/2

Excitation of collective states...

S/056/63/044/001/057/067
B164/B102

distribution $n(\vec{r})$. Then a comparison between the theoretical and the experimental differential scattering cross sections allows α_2 , α_3 , radius R , and the imaginary part of the optical potential ζ to be estimated. In the case of 40-Mev protons the differential scattering cross sections are calculated for the excitation of the 2^+ , 3^- collective levels of Mg^{24} , Ni^{58} , and Gd^{156} . The results are then compared with the experimental values (private communication). For these nuclei, α_2 , α_3 , R and ζ are given. There are 3 figures. VB

SUBMITTED: August 15, 1962

Card 2/2

DROZDOV, S. I.

"Excitation of Collective Levels of Nuclei by Nucleon Scattering."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22
Feb 64.

IAE (Inst Atomic Energy)

"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041123

APPROVED FOR RELEASE: Thursday, July 27, 2000

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"APPROVED FOR RELEASE: Thursday, July 27, 2000

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ASSOCIATION: none

APPROVED FOR RELEASE: Thursday, July 27, 2000

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APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041123

DROZDOV, S.I.

Scattering with excitation of collective levels in nuclei in
the optical model. IAd. fiz. 2 no.5:810-822 N '65.
(MIRA 18:12)

DROZDOV, S.M.

[Stalingrad Province; a survey of its physical and economic
geography] Stalingradskaya oblast': fiziko-geograficheskii
i ekonomiko-geograficheskii obsor. Stalingrad, Stalingrad-
skoe knizhnoe izd-vo, 1958. 422 p. (MIRA 13:2)
(Stalingrad Province--Economic conditions)

DROZDOV, S. N.

The effect of preplanting treatment of seeds with copper sulfate on the yield in field tests. S. N. Drozdov. *Sbornik Rabot Chlenov Nauch. Studenchesk. Obshchestva Leningrad. Sel'skokhoz. Inst.* 1952, No. 1, 63-6 (Pub. 1953); *Referat. Zhur. Khim., Biol. Khim.* 1955, No. 200. — Seeds of wheat and of buckwheat were soaked in weak solns. of CuSO_4 (80-240 mg./l.) with and without vernalization and planted in exptl. field plots in peat soils normally sensitive to Cu treatment. Vernalized buckwheat seeds soaked in a 240 mg./l. CuSO_4 soln. had 61.1% yield increase. The highest wheat yield was obtained from vernalized seeds soaked in an 80 mg./l. soln. of CuSO_4 . B. S. Leybur

1. DROZDOV, S. N.
2. USSR (600)
4. Plants, Effect of Metals on
7. Pre-planting steeping of seed in copper sulfate solution as a means of satisfying the copper requirements of plants. Dokl. AN SSSR 83 No. 6, 1952. Leningradskiy Sel'skokhozyaystvennyy Institut pages 929-930.
9. Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED. RCD 17 Jan. 1952.

USSR / Plant Physiology. Mineral Nutrition.

I-3

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 43735

Author : Drozdoz, S. N.

Inst : Leningrad Agricultural Institute

Title : The Boron Requirement of Wheat in Ontogeny

Orig Pub : Zap. lelingr. s.-kh. in-ta. 1956, vyp. 11, 79-84

Abstract : A twice repeated experiment was made with a water culture of Diamant variety summer wheat. The complete absence of B in the nutrient environment (in Knop mixture) or providing plants with it only during the first or solely during the second stages of ontogeny produced no grain yield. The third stage turned out to be critical: supplying the wheat plants with B throughout this stage yielded a grain output close to that of the control where B was applied during the course of the whole vegetation period. The effect of B on the harvest of vegetable mass was considerably smaller. -- O. P. Medvedeva.

Card 1/1

DROZDOV, S. N., Cand Biol Sci -- (diss) "Need of Spring Wheat
for Trace Elements during ^{growing} ~~different~~ Stages of Its Development."
Len-Pushkin, 1957. 16 pp (Min of Agriculture USSR, Len Agri-
cultural Inst), 180 copies (KL, 48-57, 105)

- 17 -

AUTHOR: Drozdov, S. N. SOV/20-121-4-49/54

TITLE: The Influence of Copper on the Intensity of Photosynthesis in the Leaves of Spring Wheat (Vliyaniye medi na intensivnost' fotosinteza list'yev yarovoy pshenitsy)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 4, pp. 753-754 (USSR)

ABSTRACT: The data which were published on the influence mentioned in the title are full of contradictions (Ref 1). The author determined this influence by the Zeller method (Tseller, Ref 2). The results show that when the first symptoms of copper-hunger occur (inhibition of growing and paler coloring of the leaves) the difference of intensity reaches 20% in the case of plants in variants with different degree of copper supply; it further increases considerably. After 8 days this difference amounts to 52%. An additional nutrition with copper outside of the roots leads in plants with the first symptoms of the "cultivation disease" (bolezn' obrabotki) to a considerable increase of photosynthesis of short duration (about 2 days); (Table 2). Additional nutrition was administered in the following way: the leaves were three times carefully wiped with a piece of cot-

Card 1/2

SOV/20-121-4-49/54
The Influence of Copper on the Intensity of Photosynthesis in the Leaves
of Spring Wheat

ton wool soaked with CuSO_4 (50 mg CuSO_4 per liter of solution)
or with distilled water (control). Hence, the following conclusions may be drawn: 1) The intensity of photosynthesis is much smaller in plants developing on a culture medium without copper than in plants which developed on a complete culture medium. 2) An additional nutrition of plants with copper outside of the roots considerably increases this intensity for a short period. There are 2 tables and 2 references, 1 of which is Soviet.

ASSOCIATION: Leningradskiy sel'skokhozyaystvennyy institut (Leningrad
Agricultural Institute)

PRESENTED: April 1, 1958, by A. L. Kursanov, Member, Academy of Sciences,
USSR

SUBMITTED: January 24, 1958

Card 2/2

DROZDOV, S.N.; KUTUZOV, A.A.

Boron requirements of spring wheat and barley in their ontogenic development. Nauch. dokl. vys. shkoly; biol. nauki no.1:129-131 '60.
(MIRA 13:2)

1.Rekomendovana kafedroy fiziologii rasteniy Leningradskogo sel'skokhozyaystvennogo instituta.

(Wheat--Fertilizers and manures)

(Barley--Fertilizers and manures)

(Plants, Effect of boron on)

DROZDOV, S.N.

Copper requirements of spring wheat in ontogenesis. Trudy Kar. fil.
AN SSSR no.28:126-134 '60. (MIRA 14:9)
(Wheat) (Plants, Effect of copper on)

DROZDOV, S.N. (Petrozavodsk)

Copper requirement of spring wheat during its ontogeny. Bot.zhur.
46 no.6:815-823 Je '61. (MIRA 14:6)
(Plants, Effect of copper on) (Wheat)

KOROVIN, A.I.; DROZDOV, S.N.; NOVITSKAYA, Yu.Ye.; KOMULAINEN, A.A.; KURETS, V.K.

Effect of frosts on the yield and some physiological processes in
spring wheat. Dokl. AN SSSR 136 no.4:979-981 F '61. (MIRA 14:1)

1. Institut biologii Karel'skogo filiala Akademii nauk SSSR.
Predstavleno akademikom A. L. Kursanovym.
(Wheat) (Plants, Effect of temperature on)

DROZDOV, S.N.; NOVITSKAYA, Yu.Ye.; KOMULAYNEN, A.A.; KURETS, V.K.

Effect of frosts on the yield and some physiological processes in
spring wheat. Trudy Kar. fil. AN SSSR no.28:86-94 '60.
(MIRA 14:9)

(Wheat) (Plants--Frost resistance)

PETROVA, L.R.; DROZDOV, S.N.

Effect of frost on the formation of reproductive organs in spring wheat. Bot. zhur. 48 no.8:1097-1107 Ag '63. (MIRA 16:10)

1. Institut biologii Karel'skogo filiala AN SSSR, Petrozavodsk
i Botanicheskiy institut imeni V.L. Komarova AN SSSR, Leningrad.
(Wheat) (Plants—Reproduction)
(Plants, Effect of cold on)

DROZDOV, S.N.; NOVITSKAYA, Yu.Ye.; KOMULAYNEN, A.A.; SYCHEVA, Z.F.;
BARSKAYA, T.A.; PERMINOVA, L.A.

Effect of frost on certain physiological processes of spring
wheat. Trudy Kar. fil. AN SSSR no.37:42-51 '64. (MIRA 18:3)

DROZDOV, S.N.; KOMULAYNEN, A.A.; PERMINOVA, L.A.

Frost resistance of spring wheat. Trudy Kar. fil. AN SSSR
no.37:52-58 '64.

Frost resistance of potatoes and the ways of increasing
it by means of mineral fertilizers. Ibid.:59-66

(MIRA 18:3)

DROZDOV, S.N.; SYCHEVA, Z.F.

Dependence of the frost resistance of potato vines on the
rate of nitrogen metabolism. Fiziol. rast. 12 no.2:325-
331 Mr-Apr '65. (MIRA 18:6)

1. Institut biologii Petrozavodskogo gosudarstvennogo
universiteta.

KAMENSKIY, Ye.A.; DROZDOV, S.S., red.; STEBLYANKO, T.V., tekhn.
red.

Semen Alekseevich Smirnov. Stavropol', Knizhnoe izd-vo,
1962. 39 p. (MIRA 16:7)

(SMIRNOV, SEMEN ALEKSEVICH, 1818-1911)
(CAUCASUS, NORTHERN--HEALTH RESORTS, WATERING PLACES, ETC.)

BUTOV, Fedor Mikhaylovich; DROZDOV, S.S., red.; STEBLYANKO, T.V.,
tekhn. red.

[How to use gas appliances in the household] Kak pol'zovat'sia
gazom v bytu. Stavropol', Stavropol'skoe krizhnoe izd-vo,
1959. 30 p. (MIRA 15:7)
(Gas appliances) (Home accidents--Prevention)

PANTELEYEV, I.Ya.; DROZDOV, S.S., red.; STEBLYANKO, T.V., tekhn. red.

Anton Ivanovich Nezlobinskii. Stavropol', Knizhnoe izd-vo,
1962. 38 p. (MIRA 15:11)
(Nezlobinskii, Anton Ivanovich, 1847-1899)

OSOBOV, Z.; MORENKO, G.; SHAFIR, V.; ~~DROZDOV, S.S.~~, red.;
STENLYANKO, T.V., tekhn. red.

[Gas as fuel for engines]Gaz - motornoe toplivo. Stavropol',
Stavropol'skoe knizhnoe izd-vo, 1962. 40 p. (MIRA 15:11)
(Gas as fuel)

BOBROV, V.Ya.; DROZDOV, S.S., red.

[Weather forecasting based on local observations] Kak
predskazyvat' pogodu po mestnym priznakam. Stavropol',
Stavropol'skoe knizhnoe izd-vo, 1962. 46 p.
(MIRA 17:5)

BERESTNEV, L.B.; DROZDOV, S.S., red.; STEBLYANKO, T.V., tekhn. red.

[Handbook for rural electricians] Spravochnik sel'skogo elektro-
montera. Stavropol', Stavropol'skoe knizhnoe izd-vo, 1962. 151 p.
(MIRA 16:3)

(Rural electrification--Handbooks, manuals, etc.)

(Electric engineering--Handbooks, manuals, etc.)

DROZDOV, S.S.; MOSOLOVA, V.V.; NIKUSHEIN, A.I.

Thermistor temperature compensation for a salinometer. Priborostroenie
no.3:7-8 Mr '64. (MIRA 17:6)

DROZDOV, S.V.

Remains of the littoral sediments of the Khvalynian stage time.

Izv.vys.ucheb.zav.; geol. i razv. 6 no.11:149-150 N '63.

(MIRA 18:2)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze.

KOLOMENSKIY, N.V.; KOMAROV, I.S.; Primali uchastiye: IVANOVA,
I.N.; DROZDOV, S.V.; ZAKHAROVA, N.A., red.

[Engineering geology] Inzhenernaia geologiya. IAroslavl',
Vysshaya shkola, 1964. 480 p. (MIRA 17:6)

DROZDOV, S.V.: FEDOROV, Ye.P.

Latitude variations at Poltava for the period 1945.5 - 1946.5.
Trudy Polt.grav.obser. 2:57-61 '48. (MIRA 8:1)
(Poltava--Latitude variation)

PA5/47140

DROZDOV, S. V.

Jul 48

USSR/Geophysics
Refraction, Astronomical

"Rare Forms of Complex Halos," S. V. Drozdov, 1 p

"Priroda" No 7

Gives nature of and reasons for the complex halo,
which was observed around the moon from the city of
Poltava (Uzbek SSR) on night of 28 Nov 47. Includes
diagram of halo.

5/49148

DROZDOV, S. V.

27588. Slozhnoye Galo [19 Apr. 1948 G.] Priroda, 1949, No. 8, s. 53-54.

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

DROZDOV, S. V.

PA156T6

USSR/Astronomy - Stellar Dynamics Jan/Feb 50
Stellar Measurements

"Determination of the Declination of Stars From
Observations on Zenith Telescopes," S. V. Droz-
dov, M. S. Zverev, State Astr Inst imeni P. K.
Shternberg, Poltavsk Gravimetric Obs, Ukrainian
Affiliate, Acad Sci USSR, 6 pp

"Astron Zhur" Vol XXVII, No 1

Collective work on creation of new system of star
declinations and accurate determination of most
refined natural movements of stars will improve
practical investigation into the movement of the
earth's poles. Submitted Aug 49.

156T6

DROZDOV, S.

Eclipses, Lunar - 1952

Observations of the lunar eclipse of August 5, 1952 from the Poltava Observatory of the Academy of Sciences of the U.S.S.R. Astron. tsir. no. 129, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

DROZDOV, S.V. (Poltava); SELESHNIKOV, S.I. (Leningrad).

[Brief astronomical calendar for 1953] Krat.astron.kal. 1953 6:3-52 '52.
(MLRA 6:9)
(Astronomy--Yearbooks)

DROZDOV, S.V.

Determining geographic coordinates by using Professor S.P.Glazenap's solar
ring. *Krat.astron.kal.* 1953 no.6:65-69 '52. (MLA 6:9)
(Coordinates)

DROZDOV, S.V. (g. Poltava).

Determining geographic latitude and longitude with a meridian ring. Pis.v
shkole no.6:64-66 '53. (MIRA 6:10)
(Geographical positions) (Transit circle)

BRONSHTEN, V.A.; DROZDOV, S.V., redaktor; SELESHNIKOV, S.I., redaktor;
YAKOVKIN, A.A., otvetstvennyy redaktor.

"Brief astronomical calendar for 1952." Reviewed by V.A.Bronshten.
Biul.VAGO no.13:52-53 '53. (MLRA 7:3)
(Astronomy--Yearbooks)

DROZDOV, S.

Observations of the brilliance of Mrkos-Honda's comet 1953a.
Astron. tsir. no. 143:5-6 M '53. (MLRA 7:8)

1. Poltavskaya gravimetriceskaya observatoriya Akademii nauk
U.S.S.R.
(Comets--1953)

DROZDOV, S. V.

Subject : USSR/Astronomy AID P - 849
Card 1/1 Pub. 8 - 8/13
Author : DrozdoV, S. V.
Title : Declinations of Nine Stars of Shenberg's Zenithal Program
Periodical : Astron. zhur., v. 31-5, 453-456, S-0 1954
Abstract : Gives precise declinations of nine stars, as deduced by the author from Shenberg's observations. A method is suggested for determination of declinations of zenithal stars with high accuracy by using a small instrument. 3 tables, 5 references, of which 4 are Russian.
Institution : Poltava Observatory
Submitted : N 9, 1953

IROZDOV, S.V. (Poltava)

The solar eclipse of July 9, 1945 and its representation in a picture.
Bibl. VAGO no.15:37-40 '54. (MIRA 8:4)
(Eclipses, Solar--1945)

DROZDOV, S.V.

Program of weak zeniths and zenith pairs, and observations of this
program at Poltava during 1940.2-1941.7. Trudy Polt.grav.ebserv.5:
79-146 '55. (MIRA 9:9)
(Poltava--Astronomy, Spherical and practical)

DROZDOV, S.V.

Preliminary catalog of declination of 204 stars in the Poltava zenith
program. Trudy Polt.grav.observ. 5:147-159 '55. (MLRA 9:9)
(Poltava--Stars--Catalogs)

DROZDOV, S.V.

Proper motions of stars with a yearly declination exceeding $0^{\circ} 05'$,
observed by zenith telescope at Peltava. Astron. žirk. no. 167:7-8
F '56. (MLRA 9:9)

1. Peltavskaya gravimetriceskaya observatoriya AN USSR.
(Stars--Proper motion)

DROZDOV, S. V.:

DrozdoV, S. V.: "Determination of precise deflections and variations in latitude by using the zenith telescope according to a zenith program." Acad Sci USSR. Main Astronomical Observatory. Pulkovo, 1956. (Dissertation for the Degree of Doctor in Physicomathematical Science)

SO: Vnizhnaya letovis', No 27, 1956. Moscow. Pages 94-109; 111.

DROZDOV, S.V.

KOLOMENSKIY, N.V.; DROZDOV, S.V.

Analysis of the deformation of structures in engineering geological research. Rasved. i okh.nedr. 22 no.11:48-53 N '56. (MLRA 10:1)

1. Moskovskiy Geologorazvedochnyy institut.
(Engineering geology) (Deformations (Mechanics)) (Earth movements)

DROZDOV, S.V.

KOLOMENSKIY, N.V.; ~~DROZDOV, S.V.~~

Observations on the rate of weathering of argillaceous rocks for
purposes of engineering geology. Trudy MGRI 29:179-184 '56.
(Clay) (Weathering) (MLBA 10:4)

DROZDOV, S.V.

Boring operations from the ice surface of the Yenisey River.
Trudy MGRI 30:140-142 '56. (MLBA 9:11)
(Yenisey River--Boring)

DROZDOV, S. V.

Defense of Dissertations Jan.-Jul 1957

Section of Physico-Mathematical Sciences (Vest. Ak Nauk SSSR, 27, No. 12, 1957, 109-11)

In the Inst. for Physics im. P. M. Lebedev the following applications for the degree Candidate of Physico-Mathematical Sciences

NIKISHOV, A. I. - Statistical Theory of the Formation of Particles at High Energies.

POPOV, Yu. M. - The Scattering of - Mesons by Nucleons in the Semiphenomenological and in the Highest Approximation of the Tamm-Dankov Method.

RAUTIAN, S. G. - Reduction Theory Concerning the Ideal Spectral Apparatus.

RUEANOV, V. D. - Investigation of the Injection Effect on the Betatron.

KHOKHLOV, Yu. K. - Investigation of the Theory of the Nuclear Photoeffect.

In the Main Astronomical Observatory the following applications for the degree of Doctor of Physico-Mathematical Sciences:

DROZDOV, S. V. - The Determination of Exact Declinations and Broad Fluctuations by Means of the Zenith Telescope According to the Zenith Program.

KHABIBULLIN, Sh. T. - The Physical Libration of the Moon. (Investigation of the Physical Libration of the Moon by the Photographic Method and Derivation of the Parameter f from the heliometric observations made in Kazan').

For the degree of Candidate of Physico Mathematical Sciences:

GONTIOVEKAYA - V. T. - The Application of Modern Computation Technique in the Analytical Method of Sky Mechanics.

DUBOV, E. Ye. - The Peculiar Features of Internal Motions and of the Luminescence of Quiet Protuberances.

IVANIKOV, V. I. - On Methods of Photographic Photometry of Meteors.

ROMANCHUK, P.R.; SIBIRYAKOVA, M.; DROZDOV, S.

Aurora borealis. Astron. zh. no. 187:25-26 D '57. (MIRA 11:6)

1. Kiyevskiy gosudarstvennyy universitet (for Romanchuk). 2. Meteor-
nyy otdel Moskovskogo Vsesoyuznogo astronomo-geodezicheskogo ob-
shchestva (for Sibiryakova). 3. Novgorodskiy pedagogicheskiy insti-
tut (for Drozdov).

(Auroras)

DROZDOV, S.

Relationship between the temperature and the change of zenith point
on the micrometer drum of a zenith telescope. Astron. tsir. no. 185:20
0 '57. (MIRA 11:4)

1. Poltavskaya gravimetricheskaya observatoriya AN USSR.
(Telescope, Zenith)

DROZDOV, S.V.; SELESHNIKOV, S.I.; YAKOVKIN, A.A., otv.red.; LABINOVA,
M.M., red.isd-va; RAKHLINA, N.P., tekhred.

[Concise astronomical calendar for 1959] Kratkii astronomicheskii
kalendar' na 1959 god. Vol.12. Kiev, 1958. 123 p. (MIRA 12:3)

1. Akademiya nauk USSR, Kiev. Viddil fizyko-matematichnykh nauk.
2. Chlen-korrespondent Akademii nauk Ukrainskoy SSR (for Yakovkin).
(Astronomy--Yearbooks)

DROZDOV, S.V.

"Clay breccia" near Gorodets, Gorkiy Province. Trudy MGRI 33:65-73
'58. (MIRA 12:12)
(Gorodets region (Gorkiy Province)--Clay))

DROZDOV, S.V.

Comparing declinations derived by different methods from observations
on zenith telescopes [with summary in English]. Astron. zhur. 35 no.1:
164-166 Ja-F '58. (MIRA 11:3)

1. Poltavskaya gravometricheskaya observatoriya AN USSR.
(Stars, Double)

DROZDOV, S.

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